

WE CLAIM:

1. A method for repairing an injured intervertebral disc of a patient using a cultured
5 connective tissue construct, comprising:

(a) forming at least one opening in the annulus fibrosis of the intervertebral disc;
(b) removing at least a portion of the nucleus pulposus through the opening in the
annulus fibrosis;

(c) grafting a cultured connective tissue construct into the opening in the annular
10 fibrosis,

wherein the connective tissue construct is bioremodelable and integrates with host tissue
to close the opening with new tissue.

2. The method of claim 1, wherein the cultured connective tissue construct
15 comprises an extracellular matrix protein and fibroblasts.

3. The method of claim 2, wherein the extracellular matrix protein is collagen.

4. The method of claim 1, wherein the cultured connective tissue construct is a
20 contracted collagen lattice containing fibroblasts.

5. The method of claim 1, wherein the cultured connective tissue construct is a layer
of extracellular matrix which is synthesized and assembled by the cultured fibroblast cells, with

the cultured fibroblast cells contained within the synthesized extracellular matrix layer and said matrix is produced by the cultured fibroblast cells in the absence of exogenous matrix components or synthetic members during the culturing conditions.

- 5 6. A cultured connective tissue for use in surgical repair, comprising; cultured fibroblasts in a collagen matrix.